

EXHIBIT E

1 West Sacramento.

2 Q. Now, Dr. Hochman opines that there are no technical
3 barriers to Google relinking pseudonymous data back to the
4 user. Do you agree with that?

5 A. I don't agree. There are formidable technical barriers,
6 as well as policy barriers, to reidentification. We've seen a
7 number of those policies. For example, you're not allowed to
8 fingerprint. You're not allowed to intermix certain kinds of
9 data to create what are called join risks. So this is a very
10 strict rule within Google, from what I can tell from the
11 testimony.

12 Q. Did you see, in the evidence in this case, or in
13 Dr. Hochman's report, that any person out of the 97,992,376
14 class members was reidentified by Google or anyone else using
15 their pseudonymous data?

16 A. No. He and I agree that there's no evidence showing this
17 has ever happened.

18 Q. Did you see any evidence in this case, for that matter,
19 that any of the pseudonymous data in question was misused by
20 anyone or otherwise leaked outside of the apartments that are
21 locked down?

22 A. I don't think there's any evidence of that ever happening.

23 Q. Now, you mentioned a theoretical risk. Can you please
24 explain to the jury what you mean by "theoretical risk"?

25 A. Dr. Hochman has an opinion that he believes that, in

1 theory, joining certain information could lead to disclosure or
2 the reidentifying of certain individuals. He gave some ideas
3 in his report about how that might happen. But, once again, we
4 both agree there's no evidence showing it has happened. And so
5 he's offering what is, more or less, a theoretical opinion and
6 admits that no actual reidentification has ever occurred,
7 according to the evidence.

8 Q. I'm going to shorten you up a little bit.

9 A. That's fine with me.

10 Q. So, Professor Black, can you explain to the jury what
11 you're trying to convey with this slide?

12 A. Sure.

13 So there are a number of reasons that in a third-party
14 app, data is being sent to Google, and we've heard about all of
15 these in the trial. The number one that we've heard over and
16 over is analytics. That's when GA4F is sending data on behalf
17 of the app itself, and Google's providing a free service to
18 receive and collate that information so that the developer can
19 look at it later. That's called analytics.

20 Fraud prevention, Mr. Ganem talked about it to some
21 extent. If a bad guy can simulate clicking on a button a
22 thousand times a second and get revenue, they will do that. In
23 fact, they do try to do that sort of thing. Google is very
24 vigorous in preventing that, in stopping the fraudsters.

25 Google also has an accredited ad program. Their ads are

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1 maybe it's not too hard to link it to an identity, it lives in
2 sort of a gray area between pseudonymous and an explicit
3 identifier.

4 **Q.** And does pattern recognition have anything to do with
5 reidentifying people?

6 **A.** Sure. Fingerprinting is one form of pattern recognition,
7 in fact.

8 **Q.** And there are other forms of pattern recognition; correct?

9 **A.** Sure. Fingerprint scanners are pattern recognizers.

10 **Q.** And have you come across, in your work, the term "mosaic"
11 in terms of reidentifying people?

12 **A.** Maybe there's a product called Mosaic that I've heard of.
13 I'm not sure -- I can't recall.

14 **Q.** You haven't seen that in -- within Google?

15 **A.** Something called Mosaic within Google?

16 **Q.** Yeah.

17 **A.** I don't think I've heard of that.

18 **Q.** Okay. By the way, do you use Gemini?

19 **A.** Very carefully.

20 **Q.** Did you ever think about asking Gemini whether Google
21 could reidentify people at a --

22 **MR. SANTACANA:** Objection. Relevance and 403.

23 **THE COURT:** What's your response to that?

24 **MR. DAVID BOIES:** I'm just inquiring whether he's done
25 it, Your Honor. I think that --

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1 **THE COURT:** How about the relevance issue?

2 **MR. DAVID BOIES:** Well, relevance is Google Gemini --

3 **THE COURT:** Well, we need to take a break, so why
4 don't I let the jury go, and then you can explain this to me.

5 Members of the jury, remember my admonitions not to
6 discuss this amongst yourselves or with anyone else, and we'll
7 be back in 15 minutes.

8 (Proceedings were heard out of the presence of the jury.)

9 **THE COURT:** All right. We're out of the presence of
10 the jury.

11 What is this about?

12 **MR. DAVID BOIES:** Well, Gemini, you know, talks about
13 all the ways that they can reidentify -- talks about all the
14 ways that Google can reidentify people.

15 **THE COURT:** What is Gemini?

16 **MR. DAVID BOIES:** Gemini is their AI. Gemini is --

17 **THE COURT:** Google's AI?

18 **MR. DAVID BOIES:** Yeah.

19 **THE COURT:** Can you just step down for a moment?
20 Thank you.

21 **MR. DAVID BOIES:** Gemini is the Google artificial
22 intelligence thing. It's like ChatGPT but it's from Google.

23 **THE COURT:** All right.

24 **MR. DAVID BOIES:** And that would be an easy way for
25 anybody who really wanted to find out whether they could

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1 reidentify.

2 He's testified -- you know, the witness has testified the
3 way he has about identification and reidentification.

4 **THE COURT:** Right.

5 **MR. DAVID BOIES:** And he has, you know, testified --

6 **THE COURT:** You're asking the theoretical question of
7 whether or not you could use Gemini to reidentify people?

8 **MR. DAVID BOIES:** That's one thing, and also what
9 Gemini says about the ease of reidentification.

10 **THE COURT:** Well, okay.

11 Mr. Santacana.

12 **MR. SANTACANA:** Your Honor, I think you can understand
13 where he's headed. If you look at what was put in my binder, I
14 think it was put in yours in the opening flap, is Exhibit 49.

15 We don't stipulate to the authenticity of this, but it
16 looks like somebody typed into Gemini a question about what
17 Google can and can't do with its technology, and they want to
18 admit its response into this trial.

19 Now, I don't know if this has ever been done, but I don't
20 think this should be the first time. I have an authenticity
21 objection, a 403 objection, a relevance objection. It's a
22 chatbot. It's not evidence.

23 **THE COURT:** You can ask him -- because he's gone into
24 the question of how difficult it is or impossible to
25 reidentify, and you can ask him whether or not -- you can probe

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1 that and say, "Could you do it by this way or this way?"

2 That's okay.

3 But you're not going to start introducing a whole line of
4 inquiry about AI and what AI might be able to do someday.

5 That, you're not going to do.

6 So but if you just -- you know, you can ask -- what's
7 wrong with him asking whether or not this Google product could
8 theoretically reidentify somebody?

9 **MR. SANTACANA:** I don't have an objection to that,
10 Your Honor. It's not in their opening report, and I assume --
11 I don't know if he's in the room --

12 **THE COURT:** Well, but he's kind of probing something
13 he did testify about --

14 **MR. SANTACANA:** Yeah.

15 **THE COURT:** -- which is the difficulty of
16 reidentification.

17 **MR. SANTACANA:** Yeah, I don't have an objection to him
18 asking that question. Obviously, this is post-class period,
19 but Your Honor overruled an earlier objection on that.

20 **THE COURT:** Okay.

21 **MR. DAVID BOIES:** And perhaps we --

22 **THE COURT:** But we're not going to -- don't even try
23 me on --

24 **MR. DAVID BOIES:** Yes, sir. We will leave to another
25 day whether that's a party admission.

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1 **THE COURT:** Okay. Well, we don't have any other days.

2 So I've just gotten a binder with a lot of stuff in it. I
3 am really counting on us being able to conclude all evidence
4 today.

5 **MR. DAVID BOIES:** We will do that, Your Honor.

6 **THE COURT:** Right?

7 **MR. SANTACANA:** Yes, as far as I'm concerned.

8 **THE COURT:** I mean, because otherwise we're going to
9 have closing arguments on Tuesday; and I think, for everybody,
10 it's better not to have, like, an hour or 45 minutes of
11 testimony and then go into closing. So let's really try to --

12 **MR. SANTACANA:** We have no more evidence.

13 **THE COURT:** -- to clean it -- okay.

14 Good. Thank you.

15 **MR. DAVID BOIES:** Thank you.

16 (Recess taken at 12:07 p.m.)

17 (Proceedings resumed at 12:21 p.m.)

18 (Proceedings were heard out of the presence of the jury.)

19 **THE COURT:** Okay.

20 **MR. SANTACANA:** Good afternoon, Your Honor.

21 **THE COURT:** We're outside the presence of the jury.

22 **MR. SANTACANA:** Your Honor, I would like to raise one
23 more issue with respect to Gemini. If I could just have a
24 moment.

25 We've consulted with our client and other counsel, and we

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1 have a serious objection to the line of questioning on 403
2 grounds.

3 We're here at the end of this trial. Gemini and AI have
4 never come up. There's no evidence about it, and my concern --
5 our collective serious concern is that Mr. Boies' line of
6 questioning is designed to invite members of the jury to ask
7 Google's chatbot about what's going on in this case.

8 There was already one question about what could be queried
9 of the chatbot, and an exhibit in your binder is a query that
10 the plaintiffs put in that says, "Could Google reidentify data
11 using machine learning?" And they apparently intended to admit
12 that into evidence. The response of this chatbot, which we all
13 know, like ChatGPT, are prone to all kinds of things that are
14 not reliable.

15 So my request, Your Honor, is that Mr. Boies be ordered to
16 move on. It's not relevant. It's post-class period. It's
17 prejudicial, and it may invite the jury to do things they
18 shouldn't be doing.

19 He can prove his points in a variety of ways if he'd like,
20 but not in a way that invites members, people who -- I mean,
21 we've all talked about AI for two years, people who may be
22 tempted to take his advice and actually ask Gemini what they
23 apparently wanted to put into evidence.

24 **MR. DAVID BOIES:** I think I can move on, Your Honor.

25 **THE COURT:** Very good. That takes care of that.

1 Thank you.

2 Yeah, I think it's a good -- it's a good decision on your
3 part.

4 **MR. DAVID BOIES:** Okay.

5 **MR. SANTACANA:** Thank you, Your Honor.

6 **THE COURT:** All right. Let's bring in the jury.

7 **MR. DAVID BOIES:** Someday I do want to bring it in as
8 an admission.

9 **THE COURT:** I admire your efforts.

10 (Proceedings were heard in the presence of the jury.)

11 **THE COURT:** The jury is present.

12 Mr. Boies.

13 **MR. DAVID BOIES:** Thank you, Your Honor.

14 **BY MR. DAVID BOIES:**

15 **Q.** Let me try and move through this as quickly as I can.

16 First, you talked about Exhibit 442. Do you recall that?

17 **A.** The UUAD log, yes.

18 **Q.** And you described that as showing SWAA-on data. Do you
19 recall that?

20 **A.** Correct.

21 **Q.** Now, that was data that was collected from the plaintiffs;
22 correct?

23 **A.** It was collected from Google corresponding to the
24 plaintiffs.

25 **Q.** That is, it is Google's collection of data from the